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HDP/SB/21 based on PTO/SB/21 (08-00)

**Application Number** 10/675.557 **TRANSMITTAL** September 30, 2003 Filing Date **FORM First Named Inventor** Terry L. Schneider (to be used for all correspondence after initial filing) 1774 Group Art Unit **Examiner Name** Total Number of Pages in This Submission Attorney Docket Number 7784-000553/CPC ENCLOSURES (check all that apply) After Allowance Communication to Assignment Papers Fee Transmittal Form (for an Application) Group Appeal Communication to Board of Fee Attached Drawing(s) Appeals and Interferences Appeal Communication to Group Licensing-related Papers Amendment / Response (Appeal Notice, Brief, Reply Brief) After Final Petition Proprietary Information Petition to Convert to a Affidavits/declaration(s) Status Letter Provisional Application Power of Attorney, Revocation Other Enclosure(s) Extension of Time Request Change of Correspondence Address (please identify below): One (1) sheet of Form PTO-1449 Terminal Disclaimer Express Abandonment Request Request for Refund Information Disclosure Statement CD, Number of CD(s) The Commissioner is hereby authorized to charge any Certified Copy of Priority additional fees that may be required under 37 CFR 1.16 or 1.17 Document(s) Remarks to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed. Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Reg. No. Attorney Name Firm Harness, Dickey & Pierce, P.L.C. Mark D. Elchuk 33,686 Individual name Signature 2000 Date CERTIFICATE OF MAILING/TRANSMISSION I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below. Express Mail Typed or printed name EV 406 074 475 US (2/9/2004) Label No. Signature Date



#### **PATENT**

OF

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/675,557

Filing Date:

September 30, 2003

Applicant:

Terry L. Schneider

Group Art Unit:

1774

Examiner:

Title:

POLYMER COMPOSITE STRUCTURE REINFORCED WITH

SHAPE MEMORY ALLOY AND METHOD

MANUFACTURING SAME

Attorney Docket:

7784-000553/CPC

Director of the United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

## **INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

## I. <u>LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION</u>

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

#### II. COPIES

A. Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

	1449 or on the copies of PTO-892, but which are not enclosed herewith, well previously cited by or submitted to the PTO in one of the following application which has been relied upon for an earlier filing date under 35 U.S.C. § 120:			
	U.S. Serial Number 10/287,561	U.S. Filing Date November 4, 2002		
	C. Because the present application we copies of the U.S. patents or U.S. patent on the attached Form 1449 are enclosed 1.98(a)(2)(i). Any foreign patent docume attached Form 1449 are enclosed herewise	application publications what pursuant to the waiver of nts or non-patent literature	ich are listed 37 C.F.R. §	
	D. This is a PCT application in the electron States. A copy of the International Search information. The documents listed on the on the attached Form 1449 for consideral any patent resulting from this application was from the US, EPO, or JPO search should have been supplied to the USPTO believed to be in the file of the above-ider	ch Report is attached for the elinternational Search Repation by the Examiner and Since the International Sauthorities, copies of thes of under the trilateral agreer	e Examiner's ort are listed for listing on Search report e references ment and are	
II.	CONCISE EXPLANATION OF THE RELE	EVANCE (check at least on	e box)	
	A.   Except as may be indicated below other information are in the English langu			
	B. A concise explanation of the relevant information listed that is not in the Englis § 1.98(a)(3)):	•		
	1. See the attached foreign counterpart foreign application:	patent office communica	tion from a	
	2. English translations are provi	ded:		
	3.   Other:			
	C. The following additional informations	ation is provided for the	Examiner's	

IV.	CROSS REFERENCE TO RELATED APPLICATION(S)			
	contain(s) subject ma bringing this(these) ap	is advised that the foll tter that may be related oplication(s) to the Exami fidentiality provisions of 3	to the present applica ner's attention, Applica	ation. By
	<u>Serial No.</u> 10/287,561	Filing Date 11/4/02	<u>Art Unit</u> 1775	
V.	THIS IDS IS BEING FI	LED UNDER		
	A. 🛛 37 C.F.R. § 1.97	(b): (check only one box)		
	than a continue	ee months of the filing da ed prosecution application fee or certification is requ	n under § 1.53(d) (37	
		ee months of the date of in an international application is required.		
		e mailing of a first Office a fee or certification is requ		' C.F.R. §
		e mailing of a first Office a camination under 37 C.F.I		
	В. <b>37 С.F.R. § 1.97</b>	(c): (check only one box)		
		ng date of either any Fina of Allowance under 37 s prosecution.		
	1.  No certific by 37 C.F.R. § 1	ation; therefore, a fee in t I.17(p).	he amount of \$180.00 i	s required
	2 $\square$ See the co	artification holow. No foo	is required	

C. 37 C.F.R. § 1.97(d):

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee. 1. See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p). CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box) The undersigned hereby certifies that: A.  $\square$  each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or B. In no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)). C. some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS. VII. STATEMENT UNDER 37 C.F.R. 1.704(d) The undersigned hereby states that: each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VI.

# VI. PAYMENT OF FEES (check only one box)

A.  $\square$  A check in the amount of \$180.00 is enclosed for the above identified fee.

B. Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated: Feb. 9, 2004

Mark D. Elchuk

Reg. No. 33,686

Harness, Dickey & Pierce, P.L.C. P.O. Box 828 Bloomfield Hills, Michigan 48303 (248) 641-1600

MDE/lkj



M HDP-1449 (Based on Form PTO-1449)

# PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Sheet 1 of 1

ATTORNEY DOCKET No.	SERIAL NO.			
7784-000553/CPC	10/675,557			
APPLICANT				
Terry L. Schneider				
FILING DATE	GROUP			
September 30, 2003	1774			

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		5,614,305	03/1997	Paine et al		

FORE	IGN PATEN	IT DOCUMENTS	3				
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	on No
1.							

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)				
Ref. Desig.	Examiner's Initials			
1.		Ni-Ti SMA-Reinforced Al Composites by G.A. Porter, P.K. Liaw, T.N. Tiegs and K.H. Wu, October, 2000		
2.		"Preparation of a smart composite material with TiNiCu shape memory particulates in an aluminum matrix" by Z.G. Wei, C.Y. Tang, W.B. Lee, L.S. Cui and D.Z. Yang; October 1997		
3.		"Increased Impact Damage Resistance of Shape Memory Alloy Composites" by Kelly A. Tsoi, Rudy Stalmans, Martine Wevers, Jan Schrooten and Yiu-Wing Mai; date unknown		
4.		"Fracture toughening mechanism of shape memory alloys due to martensite transformation" by Sung Yi and Shan Gao; date unknown		
5.		"On the Interaction Between Transformation Toughening and Crack Bridging by Ductile Layers in Hybrid Composites" by M. Li, N. Katsube and W.O. Soboybio, Journal of Composite Materials, Vol. 35, No. 12/2001		
6.		"The Evolution of an Aerospace Material: Influence of Design, Manufacturing, and In- Service Performance" by Alan G. Miller and Donald T. Lovell and James C. Seferis; Composite Structures 0263-8223/93/S06.00; 1993 Elsevier Science Publishers Ltd., England		

Examiner:	Date Considered:
Examinor.	Date Corloidered.